## DETAILED ACTION

### *Claim Status*

1. Claims 1-20 are pending.

### *Claim Objections*

2. Prior objection to claim 19 is withdrawn.

### *35 USC § 101 Comment*

3. Regarding claim 19, this claim recites "computer-readable media". In the absence of any other modifying disclosure of this limitation in the specification, the Examiner interprets the 'computer-readable media' as being limited to statutory embodiments, only such that it satisfies the terms of 35 U.S.C. 101.

### *Claim Rejections - 35 USC § 103*

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

**5. Claims 1, 7, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 20050010559 by Du et. al. (hereafter Du) further in view of U.S. Patent Application Publication 2001/0049707 by Bao Q. Tran (hereafter Tran).**

**Claim 1 :**

Du discloses

"a computer-implemented method for mapping intellectual property" [Du discloses, figure 8 elements 840-850. Accordingly, a computer-implemented method for mapping (figure 8 elements 840-850, search; 0042, located) intellectual property (patents)]

"searching one or more remote databases for one or more relevant patents; and"[ Du discloses, figure 8 element 840, search patent databases to collect target patents. Accordingly, searching one or more remote databases (search patent databases)for one or more relevant patents (to collect target patents)]

Du does not explicitly disclose

"parsing noun phrases in claims and cross-referencing one or more discussions of each parsed noun phrases in a description; and"

"linking each noun phrase to the cross-referenced discussion for reviewing the patent."

On the other hand, Tran discloses

"parsing noun phrases in claims and cross-referencing one or more discussions of each parsed noun phrases in a description; and"[See paragraph 0053, the agent probes for a generic alternative for each element and uses the generic alternative in place of the specific version of the element in an independent claim, with the specific version being used in appropriate dependent claims for purposes of claim differentiation. For example, if the claim recites a 'jet engine' but the invention can work with any type of engine, the agent would suggest moving the specific reference 'jet' to a dependent claim. 0054, the agent iteratively asks the user what elements can be eliminated from a claim. For each element, the agent asks the user whether this element is really ncessary and can a competitor do without the element in a design around effort. Accordingly, parsing (0053, agent probes…for each element) noun phrases (0053, elements;

0053, jet engine) in claims (0053, claim) and cross-referencing one or more discussions (0054, for each element, the agent asks the user whether the element is really necessary) of each parsed noun phrases (0053, elements; jet engine) in a description (0053, specific reference)]

"linking each noun phrase to the cross-referenced discussion for reviewing the patent."[ See paragraph 0053, the agent probes for a generic alternative for each element and uses the generic alternative in place of the specific version of the element in an independent claim, with the specific version being used in appropriate dependent claims for purposes of claim differentiation. For example, if the claim recites a 'jet engine' but the invention can work with any type of engine, the agent would suggest moving the specific reference 'jet' to a dependent claim. 0054, the agent iteratively asks the user what elements can be eliminated from a claim. For each element, the agent asks the user whether this element is really necessary and can a competitor do without the element in a design around effort. Accordingly, linking (agent iteratively asks) each noun phrase (elements; jet engine) to the cross-referenced discussion (iteratively asks the user what elements can be eliminated from the claims) for reviewing the patent (figure 2 and 3)]

Du and Tran all are directed to systems of patent search. They are all within the same field of endeavor as applicant's invention. It would have been obvious to a person of an ordinary skill in the art at the time the invention was made to have applied Tran's disclosure above to the disclosure of Du for the purpose of utilizing the searched patents in other ways such as building and drafting patent applications after a search has been done.

**Claim 7 :**

The combination of Du and Tran disclose in Tran "annotating a patent drawing by taking an item or part list, associating a corresponding item name with an item number, and showing the corresponding item name with the item number to avoid manual annotation of the drawing" [ Paragraph 0073, generates a description by taking the elements of each figure, ascertaining the relationships among the elements, and textually describes the elements in the figures. The process 400 builds on the figures generated in fig. 4. 0074, for each related group of elements in the figure, the process identifies each element in the related group and extract name of element and relationship to other element(s) in the figure. This information is translated into text form. Reference characters corresponding to elements recited in the detailed description and the drawings are used in conjunction with the recitation of the same element or group of elements in the claims. The reference characters are enclosed within parentheses so as to avoid confusion with other numbers or characters that may appear in the claims. 0070, each figure is composed of one or more elements, each of which has a name. Accordingly, annotating a patent drawing (0073, generates a description) by taking an item or part list (0073, figures), associating a corresponding item name (0074, element name) with an item number (0074, reference characters corresponding to elements), and showing the corresponding item name with the item number (0074, *reference characters corresponding to elements recited* in the detailed description and the drawings are used in conjunction) to avoid manual annotation of the drawing (figure 5, generates a description)].

**Claim 16 :**

Du discloses

"a computer-implemented system for mapping intellectual property" [Du, figure 8 elements 840-850. Accordingly, a computer-implemented system for mapping (figure 8 elements 840-850, search; 0042, located) intellectual property (patents)]

"means for searching one or more remote databases for one or more relevant patents; and"[Du, figure 8 element 840, search patent databases to collect target patents. Accordingly, means for searching one or more remote databases (search patent databases)for one or more relevant patents (to collect target patents)]

Du does not explicitly disclose

"means for parsing noun phrases in claims and cross-referencing one or more discussions of each parsed noun phrases in a description; and"

"means for linking each noun phrase to the cross-referenced discussion for reviewing the patent."

On the other hand, Tran discloses

"means for parsing noun phrases in claims and cross-referencing one or more discussions of each parsed noun phrases in a description; and"[See paragraph 0053, the agent probes for a generic alternative for each element and uses the generic alternative in place of the specific version of the element in an independent claim, with the specific version being used in appropriate dependent claims for purposes of claim differentiation. For example, if the claim recites a 'jet engine' but the invention can work with any type of engine, the agent would suggest moving the specific reference 'jet' to a dependent claim. 0054, the agent iteratively asks the user what elements can be eliminated from a claim. For each element, the agent asks the user whether this element is really ncessary and can a competitor do without the element in a design

around effort. Accordingly, means for parsing (0053, agent probes…for each element) noun phrases (0053, elements; 0053, jet engine) in claims (0053, claim) and cross-referencing one or more discussions (0054, for each element, the agent asks the user whether the element is really necessary) of each parsed noun phrases (0053, elements; jet engine) in a description (0053, specific reference)]

"means for linking each noun phrase to the cross-referenced discussion for reviewing the patent."[ See paragraph 0053, the agent probes for a generic alternative for each element and uses the generic alternative in place of the specific version of the element in an independent claim, with the specific version being used in appropriate dependent claims for purposes of claim differentiation. For example, if the claim recites a 'jet engine' but the invention can work with any type of engine, the agent would suggest moving the specific reference 'jet' to a dependent claim. 0054, the agent iteratively asks the user what elements can be eliminated from a claim. For each element, the agent asks the user whether this element is really necessary and can a competitor do without the element in a design around effort. Accordingly, means for linking (agent iteratively asks) each noun phrase (elements; jet engine) to the cross-referenced discussion (iteratively asks the user what elements can be eliminated from the claims) for reviewing the patent (figure 2 and 3)]

Du and Tran all are directed to systems of patent search. They are all within the same field of endeavor as applicant's invention. It would have been obvious to a person of an ordinary skill in the art at the time the invention was made to have applied Tran's disclosure above to the disclosure of Du for the purpose of utilizing the searched patents in other ways such as building and drafting patent applications after a search has been done.

**6. Claims 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 20050010559 by Du et. al. (hereafter Du) further in view of U.S. Patent Application 2001/0049707 by Bao Tran (hereafter Tran), U.S. Patent 6947930 by Anick et. al. hereafter (Anick), and "The Paraphrase Search Assistant: terminological Feedback for Iterative Information Seeking" by Anick et. al. (hereafter Anick 2).**

**Claim 2 :**

The combination of Du and Tran disclose in Du the following claimed limitations:

"receiving as a query one or more keywords or assignees to be searched;" [Du, figure 8 element 810, receive a search query. ]

"searching the query in Issued Patent or Published Application databases;" [Du, figure 8 element 840, search patent databases to collect target patents. Du, 0042 lines 10-13, patent databases are searched to collect target patents both satisfying conditions of the search query and whose owners match at least one entity set forth in the watch list. Accordingly, searching the query (0042, query) in Issued Patent or Published applications (0042, patent databases)]

"retrieving cited prior art patents for each patent found in search results;" [Du, figure 8 element 850, search patent databases to collect reference patents. Du, 0042 lines 15-17, patent databases are searched again to collect reference patents that are cited by target patents. Accordingly, retrieving cited prior art (0042, reference patents that are cited) for each patent found as search results (target patents)]

"cited prior art" [Du, 0042, reference patents that are cited]

The combination of Du and Tran do not explicitly disclose:

"updating the query by adding" terms "from the" documents "; and"

"running a second search using the updated query"

On the other hand, Anick discloses

"updating the query by adding" terms "from the" documents [Anick, See figure 6 elements 614, if a user selects a term in the subset of candidate terms repeat the processing, selecting and presenting with a revised query that includes the received query and the Selected candidate term from the subset of candidate terms. See figure 6 element 610, a subset of candidate terms that are in one or more of the respective sets of ranked candidate terms that are associated with documents in the initial group of ranked documents. Accordingly, updating the query (figure 6 element 614, revised query) by adding terms (figure 6 element 610, terms) from the documents (figure 6 element 610, documents)]

"running a second search using the updated query" [Anick, col. 19 lines 21-22, the processing, selecting, and presenting are repeated with a revised query that includes the original query and the selected candidate term from the subset of candidate terms. Accordingly, running a second search (repeated) using the updated query (revised query)]

Du discloses a search of target patents as well as reference patents, see figure 8. Tran discloses a search for patents as well. Anick discloses a query refinement method in which extracted terms are taken from a searched document and then those terms are to be used to update the query see figure 6. Du, Tran, and Anick are directed to search systems. Du and Tran do not explicitly extract terms from the searched documents in order to update the query. Anick discloses updating the query and repeating the steps of searching and obtaining more search terms via the searched documents. It would have been obvious to a person of an ordinary skill in

the art at the time the invention was made to have applied the disclosure of Anick above to the combination of Du and Tran for the purpose of providing a query refinement method for subsequent searches. Doing so would provide a better search for patent information to both Du and Tran's system.

The combination of Du, Tran, and Anick do not expressly disclose the use of "adding assignee" in relation to updating the query per se. Anick only broadly discloses this since an extracted term from a document can be an assignee from a document.

On the other hand, Anick 2 more explicitly discloses the use of "adding assignee" in relation to updating the query. See Paragraphs 24-25 facets are determined for a query by extracting terms from result lists. See Paragraphs 28-30, the facet corporation includes patent assignees. See Paragraph 38 and figure 2 of Anick 2, a selection of a facet value. Anick 2 further discloses "adding assignee" to the query through the use of facets as seen in 0030 and figure 2 in order to further refine a query.

Du, Tran, Anick and Anick 2 are all directed towards search systems and are therefore analogous. Du is directed to a target and reference patent search system. Tran is also directed to a search system. Anick is directed to query refinement however does not expressly disclose extracting the Assignee data per se. Anick 2 more expressly discloses a query refinement method that utilizes Assignee data as seen in paragraph 30. Anick 2 therefore discloses using the assignees (patent assignees, Anick 2 paragraph 30) from cited prior art (patent abstracts, Anick 2 paragraph 28) in order to update the query (paragraph 38 and figure 2) as can be seen in a published by Anick 2. It would have been obvious to a person of an ordinary skill in the art at the time the invention was made to have applied the disclosure of Anick 2 to the combination of

Du, Tran, and Anick for the purpose of obtaining assignees from patent documents and using the assignee data to update the query as seen in paragraph 0030 and figure 2 of Anick 2.

**7. Claims 3-5, 8-10, 13, and 17-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 20050010559 by Du et. al. (hereafter Du) further in view of U.S. Patent Application Publication 2001/0049707 by Bao Q. Tran (hereafter Tran) and U.S. Patent 6339767 by Rivette et. al. (hereafter Rivette).**

**Claim 3 :**

The combination of Du and Tran do not explicitly disclose "for each patent, creating spring relationship among patents having relationship strength based on number of citation of patent prior art; and generating a spring mass diagram".

On the other hand, Rivette "for each patent, creating spring relationship among patents having relationship strength based on number of citation of patent prior art; and"[Rivette, figure 65. Rivette, col. 88 lines 65- col. 89 line 14. Accordingly, for each patent (patent), creating spring relationship (figure 65, citation) among patents (patents 1-12) having relationship strength (level) based on number of citation of patent prior art (patent 1 cites patents 2-4)]

"generating a spring mass diagram." [Rivette, figure 65. Accordingly, generating a spring (citation) mass (patent) diagram (display)]

Du, Tran, and Rivette are directed towards patent search systems. Du produces citation lists as well as presents search results (see Du 0034 and 0025). Rivette more explicitly discloses that a display of patents is provided as seen in figure 65. It would have been obvious to a person of an ordinary skill in the art at the time the invention was made to have applied Rivette's

disclosure above to the disclosure of Du and Tran for the purpose of providing a more explicit display of how the patents and cited patents are related rather than just a generic list.

**Claim 4 :**

The combination of Du and Tran do not explicitly disclose "clusterizing patents according to word similarity." On the other hand, Rivette discloses "clusterizing patents according to word similarity." [Rivette, col. 92 lines 2-6, clustering/bracketing module in the enterprise server operates to identify and graphically represent potential relationships between a source patent and citing patents, where the citing patents are either cited in the source patent or cite the source patent. Rivette, col. 92 lines 31-34, patent clustering/bracketing module identifies the ownership of the source patent and the ownership of the citing patents by reference to the assignee table and/or the core_patent_xref table. Accordingly, clusterizing (cluster/)patents (patent/reference) according to word similarity (assignee/owner).] Du, Tran, and Rivette are directed towards patent search systems. Du produces citation lists as well as presents search results (see Du 0034 and 0025). Rivette more explicitly discloses that a display of patents is provided as seen in figure 65. It would have been obvious to a person of an ordinary skill in the art at the time the invention was made to have applied Rivette's disclosure above to the disclosure of Du and Tran for the purpose of providing a more explicit display of how the patents and cited patents are related rather than just a generic list.

**Claim 5 :**

The combination of Du and Tran do not explicitly disclose "generating a visualization of the patents for plotting on a large format plotter." On the other hand, Rivette discloses "generating a visualization of the patents for plotting on a large format plotter." [Rivette, figure 65, and col. 89

lines 4-5, patent citation report fig. 65 is multi-leveled. Accordingly, generating a visualization of the patents (figure 65, patents 1-12) plotting (patents 1-12) on a large format plotter (figure 65, display).] Du, Tran, and Rivette are directed towards patent search systems. Du produces citation lists as well as presents search results (see Du 0034 and 0025). Rivette more explicitly discloses that a display of patents is provided as seen in figure 65. It would have been obvious to a person of an ordinary skill in the art at the time the invention was made to have applied Rivette's disclosure above to the disclosure of Du and Tran for the purpose of providing a more explicit display of how the patents and cited patents are related rather than just a generic list.

**Claim 8 :**

The combination of Du and Tran do not explicitly disclose "caching results from prior IP maps in a remote computer." On the other hand, Rivette discloses "caching results from prior IP maps in a remote computer." [Rivette, col. 53, lines 20-23, the caching subsystem of the broker layer provides a means for objects to be cached on the client after they have been retrieved from the enterprise server (col. 55 lines 30-55); the caching subsystem sends requests to the enterprise server to retrieve additional patent data for display in the second panel. When responding to such requests involving the console, the enterprise server preferably returns patent data representative of a plurality of patents. Specifically, the enterprise server returns data representative of a patent cluster. Accordingly, caching results from prior IP maps (patent data) in a remote computer (server).] Du, Tran, and Rivette are directed towards patent search systems. They are therefore analogous to applicant's invention. It would have been obvious to a person of an ordinary skill in the art at the time the invention was made to have applied Rivette's disclosure above to the disclosure of Du and Tran for the purpose of retrieving results faster for a request

being made. In storing the patent data in a cache, requests that have been made recently would be rendered quicker.

**Claim 9 :**

The combination of Du and Tran do not explicitly disclose "retrieving a cached IP map in response to a user request." On the other hand, Rivette discloses "retrieving a cached IP map in response to a user request." [Rivette, col. 53 lines 40-45, Cache subsystem receives a request for data from a requester. This data request is described herein as being a request for patent data, accordingly, retrieving a cached IP map (patent data) in response to a user request (requester).] Du, Tran, and Rivette are directed towards patent search systems. They are therefore analogous to applicant's invention. It would have been obvious to a person of an ordinary skill in the art at the time the invention was made to have applied Rivette's disclosure above to the disclosure of Du and Tran for the purpose of retrieving results faster for a request being made. In storing the patent data in a cache, requests that have been made recently would be rendered quicker.

**Claim 10 :**

The combination of Du and Tran do not explicitly disclose "periodically flushing cached IP maps to ensure a fresh IP map." On the other hand, Rivette discloses "periodically flushing cached IP maps to ensure a fresh IP map." [Rivette, col. 53 lines 23-26, the caching subsystem enables the client to manage an infinite number of objects obtained from the enterprise server by only storing those objects that have been most recently used. Accordingly, periodically flushing cached IP maps to ensure a fresh IP map (only storing those objects that have been most recently used.) ] Du, Tran, and Rivette are directed towards patent search systems. They are therefore analogous to applicant's invention. It would have been obvious to a person of an ordinary skill in the art at

the time the invention was made to have applied Rivette's disclosure above to the disclosure of Du and Tran for the purpose of retrieving results faster for a request being made. In storing the patent data in a cache, requests that have been made recently would be rendered quicker.

**Claim 13 :**

The combination of Du and Tran do not explicitly disclose "annotating a patent at a local computer and caching the annotated patent at a remote computer to satisfy a subsequent request for said patent." On the other hand, Rivette discloses "annotating a patent at a local computer and caching the annotated patent at a remote computer to satisfy a subsequent request for said patent."[Rivette, col. 14 lines 47-51, these clients 304, 306 pursuant to instructions from human operators or users, interact with the enterprise server to access and process the information in the databases. Rivette, Col. 19 lines 58-61, more particularly, the present invention allows users to create and link annotations (also called notes) to any portions of the documents in the document databases 612. Rivette, Figure 3. Rivette, col. 3 lines 5-9, the SmartPatent Workbench has functions to annotate patents with any information whether or not patent related and has additional functions to search within annotations. Accordingly, annotating a patent (annotations to any portions of documents) at a local computer (figure 3 element 304, 306) and caching the annotated patent at a remote computer (figure 3 element 316) to satisfy a subsequent request (col. 3 lines 5-9, search annotations) for said patent (col. 3 lines 5-9, patent).] Du, Tran, and Rivette are directed to patent search systems. They are therefore analogous and within the same field of endeavor as applicant's invention. Du discloses methods of discovering related patents by providing for example a notice of cited patents (see 0042). Rivette discloses to annotate documents to provide notes in the form of annotations about patents. It would have been

obvious to a person of an ordinary skill in the art at the time the invention was made to have applied Rivette's disclosure above to the disclosure of Du and Tran for the purpose of sending a manager better notes about a specific patent when a notice is generated.

**Claim 17 :**

The combination of Du and Tran do not explicitly disclose "means for generating a computer-readable intellectual property mapping file." On the other hand, Rivette discloses "means for generating a computer- readable intellectual property mapping file."[Rivette, col. 55 lines 30-55, the caching subsystem sends requests to the enterprise server to retrieve additional patent data for display in the second panel. When responding to such requests involving the console, the enterprise server preferably returns patent data representative of a plurality of patents. Specifically, the enterprise server returns data representative of a patent cluster. Accordingly, "means for generating a computer- readable intellectual property mapping file (data representative of a patent cluster)] Du, Tran, and Rivette are directed towards patent search systems. Du produces citation lists as well as presents search results (see Du 0034 and 0025). Rivette more explicitly discloses that a display of patents is provided as seen in figure 65. It would have been obvious to a person of an ordinary skill in the art at the time the invention was made to have applied Rivette's disclosure above to the disclosure of Du and Tran for the purpose of providing a more explicit display of how the patents and cited patents are related rather than just a generic list.

**Claim 18 :**

The combination of Du, Tran, and Rivette disclose in Rivette "wherein the IP mapping file comprises: a collection of patent documents, each having one or more links embedded in the first

portion referencing one or more external documents viewable using a viewer application; and one or more links embedded in the third portion referencing information contained in the second portion"[ Rivette, Figures 71-73, are examples of patent clustering/bracketing display formats. Col. 92 lines 51-56, In the display format 7102, links 7148 are used to represent the relationship between the source patent and the citing patent. In particular links indicate that the citing patterns were cited during the prosecution of the source patent. Rivette, col. 55 lines 30-55, the caching subsystem sends requests to the enterprise server to retrieve additional patent data for display in the second panel. When responding to such requests involving the console, the enterprise server preferably returns patent data representative of a plurality of patents. Specifically, the enterprise server returns data representative of a patent cluster. A patent cluster represents a given number of patents. Accordingly, wherein the IP mapping file (col. 55 line 36-38, data representative of a patent cluster) comprises: a collection of patent documents (col. 55 line 39, given number of patents), each (figures 71elements 7104, figure 72 element 7204, and figure 73 element 7304) having one or more links embedded in the first portion referencing one or more external documents (figure 71 element 7148, links) viewable using a viewer application (figure 71 element ); and one or more links embedded in the third portion (figure 73 element 7308) referencing information contained in the second portion (figure 73 element 7306)]

"; and links to the external documents generated by a network analysis of relationships among the patent documents."[figure 71-73. Col. 92 lines 51-56, In the display format 7102, links 7148 are used to represent the relationship between the source patent and the citing patent. In particular links indicate that the citing patterns were cited during the prosecution of the source

patent. Accordingly, links to the external documents (citing patent) generated by a network analysis of relationships (relationship) among the patent documents (source patent)]

However, Rivette does not explicitly disclose "one or more links embedded in a claim portion referencing information contained in a description portion" and "wherein noun phrases in claims are cross—referenced with one or more external documents, and wherein the external documents includes a patent file history"

On the other hand, Tran discloses

"one or more links embedded in a claim portion referencing information contained in a description portion" [0075, additioanlly the process checks to ensure that all elements recited in the claims are described in the description section. This is done by searching each entry in the element table for each claim against the description generated. Accordingly, one or more links embedded in a claim portion (elements recited in the claims) referencing information contained in a description portion (are described in the description section)]

"wherein noun phrases in claims are cross—referenced with one or more external documents, and wherein the external documents includes a patent file history"[ 0041, the user is also prompted to search and electronically capture the closest prior art located from the search, or if an electronic version is not available, to manually describe the closest prior art. The closest prior art will be used later in ascertaining patentability and in refining the scope of the claims. 0051, user is guided to draft one or more independent claims. Accordingly, wherein noun phrases (0051, elements) in claims (0051, claim) are cross—referenced (0041, ascertaining and refining) with one or more external documents (0051-0052, prior art; 0041, prior art), and

wherein the external documents (0041, prior art) includes a patent file history (0041, electronic version)]

Du, Tran, and Rivette are directed towards patent search systems. Tran further provides for drafting patent documents based on patent search. Rivette more explicitly discloses that a display of patents is provided as seen in figure 65. It would have been obvious to a person of an ordinary skill in the art at the time the invention was made to have applied Tran's disclosure above to the disclosure of Du and Rivette for the purpose of providing document drafting after the search of documents. Doing so would further improve upon Du and Rivette by providing further applications of the system.

**8. Claims 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 20050010559 by Du et. al. (hereafter Du) further in view of U.S. Patent Application 2001/0049707 by Bao Tran (hereafter Tran) and U.S. Patent Application Publication 20030004936 by Grune et. al. (hereafter Grune)**

**Claim 6 :**

Du and Tran do not explicitly disclose "three-dimensionally visualizing the patents on a 3D display device showing a 3D environment where a user is placed in a virtual environment to enable the user to manipulate and explore IP relationships in three-dimensions." On the other hand, Grune discloses "three-dimensionally visualizing the patents on a 3D display device showing a 3D environment where a user is placed in a virtual environment to enable the user to manipulate and explore IP relationships in three-dimensions." [Grune, 0010, can search and map patents while simultaneously valuing those patents….model the results of the query in such a

way that a user may display and/or map (by an audio/visual means in two or three dimensions). Solutions to such queries from patents contained within specific evolving intellectual property databases, technological publications contained within evolving scientific and engineering databases, and evolving knowledge management based systems Accordingly, three-dimensionally visualizing (audio/visual means in two or three-dimensions) the patents (patents) on a 3D display device (audio/visual means) showing a 3D environment (three-dimensions) where a user (user) is placed in a virtual environment (model) to enable the user (user) to manipulate (display) and explore (map) IP relationships (Intellectual property databases) in three-dimensions (three dimensions)] Du, Tran, and Grune are directed to patent search systems. They are therefore analogous and within the same field of endeavor as applicant's invention. It would have been obvious to a person of an ordinary skill at the time the invention was made to have applied Grune's disclosure above to the combination of Du and Tran for the purpose of providing a better way to model the results for better display and mapping between patent documents.

**9. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 20050010559 by Du et. al. (hereafter Du) further in view of U.S. Patent Application Publication 2001/0049707 by Bao Q. Tran (hereafter Tran) and U.S. Patent Application Publication 2003/0177186 by Goodman et. al. (hereafter Goodman).**

**Claim 11 :**

Du and Tran do not explicitly disclose "distributing a search over a plurality of peer-to-peer client computers."

On the other hand, Goodman discloses "distributing a search over a plurality of peer-to-peer client computers" [abstract, a peer-t—peer network propagates searches from client to client. Accordingly, distributing a search (propagates searches) over a plurality of peer-to-peer client computers (peer-to-peer network…from client to client))]

Du, Tran, and Goodman are all search network systems. Du and Tran however do not explicitly disclose a peer-to-peer network. It would have been obvious to a person of an ordinary skill in the art at the time the invention was made to have included the above disclosure to the disclosure of Du and Tran for the purpose of providing the systems on different network architectures and thereby making the disclosures more versatile in regards to network search engines.

**10. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 20050010559 by Du et. al. (hereafter Du) further in view of U.S. Patent Application 2001/0049707 by Bao Tran (hereafter Tran), U.S. Patent Application 2003/0177186 by Goodman et. al. (hereafter Goodman) and U.S. Patent 5778174 by Cain et. al. (hereafter Cain).**

**Claim 12 :**

Du, Tran, and Goodman do not explicitly disclose "wherein one of the client computers is located behind a firewall, further comprising bypassing the firewall in sending distributed search results to a remote computer." On the other hand, Cain discloses "wherein one of the client computers is located behind a firewall, further comprising bypassing the firewall in sending distributed search results to a remote computer."[Cain, See Figure 1 and col. 3 lines 59- col. 4

lines 1-2. Accordingly, wherein one of the client computers (figure 1 element 20) is located behind a firewall (figure 1 element 16), further comprising bypassing the firewall (figure 1 elements 30, 24, 26, 22, 28) in sending distributed search results(col. 3 line 65, response data) to a remote computer (figure 1 element 22)]. Du, Tran, Goodman, and Cain disclose query and response systems. Du discloses sending a query and designating certain databases to be searched however offers no explicit firewall in providing results for a query. Tran further allows for a search and request system however also does not explicitly disclose a firewall. Cain discloses a query and response system that allows for a query and response to bypass a firewall. It would have been obvious to a person of an ordinary skill in the art at the time the invention was made to provide the disclosure of Cain above to the disclosure of Du for the purpose of allowing for more secure databases to be searched.

**11. Claims 14 and 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 20050010559 by Du et. al. (hereafter Du) further in view of U.S. Patent 6947930 by Anick et. al. hereafter (Anick), "The Paraphrase Search Assistant: terminological Feedback for Iterative Information Seeking" by Anick et. al. (hereafter Anick 2), and U.S. Patent Application 2001/0049707 by Bao Tran (hereafter Tran).**

**Claim 14:**

Du discloses the following claimed limitations:

"a computer-implemented method for mapping intellectual property" [Du, figure 8 elements 840-850. Accordingly, a computer-implemented method for mapping (figure 8 elements 840-850, search; 0042, located) intellectual property (patents)]

"(a) receiving as a query one or more keywords or assignees to be searched;" [Du, figure 8 element 810, receive a search query. ]

"(b) searching the query in Issued Patent or Published Application databases;"[Du, figure 8 element 840, search patent databases to collect target patents. Du, 0042 lines 10-13, patent databases are searched to collect target patents both satisfying conditions of the search query and whose owners match at least one entity set forth in the watch list. Accordingly, searching the query (0042, query) in Issued Patent or Published applications (0042, patent databases)]

"(c) retrieving cited prior art for each patent found as search results;"[Du, figure 8 element 850, search patent databases to collect reference patents. Du, 0042 lines 15-17, patent databases are searched again to collect reference patents that are cited by target patents. Accordingly, retrieving cited prior art (0042, reference patents that are cited) for each patent found as search results (target patents)]

"cited prior art" [Du, 0042, reference patents that are cited]

Du does not explicitly disclose:

"(d) updating the query by adding" terms "from the" documents;

"(e) iteratively repeating (b)-(d) using the updated query; and"

On the other hand, Anick discloses

"(d) updating the query by adding" terms "from the" documents [Anick, see figure 6 elements 614, if a user selects a term in the subset of candidate terms repeat the processing, selecting and presenting with a revised query that includes the received query and the Selected candidate term from the subset of candidate terms. Anick, see figure 6 element 610, a subset of candidate terms that are in one or more of the respective sets of ranked candidate terms that are

associated with documents in the initial group of ranked documents. Accordingly, updating the query (figure 6 element 614, revised query) by adding terms (figure 6 element 610, terms) from the documents (figure 6 element 610, documents)]

"(e) iteratively repeating (b)-(d) using the updated query; and" [Anick, col. 19 lines 21-22, the processing, selecting, and presenting are repeated with a revised query that includes the original query and the selected candidate term from the subset of candidate terms. Accordingly, iteratively repeating (b) – (d) (processing, selecting, and presenting are repeated) using the updated query (revised query)]

Du discloses a search of target patents as well as reference patents, See figure 8. Anick discloses a query refinement method in which extracted terms are taken from a searched document and then those terms are to be used to update the query see figure 6. Both Du and Anick are directed to search systems. Du searching however does not explicitly disclose updating the query. Anick discloses updating the query and repeating the steps of searching and obtaining more search terms. It would have been obvious to a person of an ordinary skill in the art at the time the invention was made to have applied the disclosure of Anick above to the disclosure of Du for the purpose of providing a query refinement method for subsequent searches. Doing so would provide a better search for patent information to Du's system.

The combination of Du and Anick does not expressly disclose the use of "adding assignee" in relation to updating the query per se. Anick only broadly discloses this since an extracted term from a document can be an assignee from a document.

On the other hand, Anick 2 more explicitly discloses the use of "adding assignee" in relation to updating the query. See Paragraphs 24-25 facets are determined for a query by

extracting terms from result lists. See Paragraphs 28-30, the facet corporation includes patent assignees. See Paragraph 38 and figure 2 of Anick 2, a selection of a facet value. Anick 2 further discloses "adding assignee" to the query through the use of facets as seen in 0030 and figure 2 in order to further refine a query.

Du, Anick and Anick 2 are all directed towards search systems and are therefore analogous. Du is directed to a target and reference patent search system. Anick is directed to query refinement however does not expressly disclose extracting the Assignee data per se. Anick 2 more expressly discloses a query refinement method that utilizes Assignee data as seen in paragraph 30. Anick 2 therefore discloses using the assignees (patent assignees, Anick 2 paragraph 30) from cited prior art (patent abstracts, Anick 2 paragraph 28) in order to update the query (paragraph 38 and figure 2) as can be seen in a published by Anick 2. It would have been obvious to a person of an ordinary skill in the art at the time the invention was made to have applied the disclosure of Anick 2 to the combination of Du and Anick for the purpose of obtaining assignees from patent documents and using the assignee data to update the query as seen in paragraph 0030 and figure 2 of Anick 2.

Du, Anick, and Anick 2 do not explicitly disclose

"parsing noun phrases in claims and cross-referencing one or more discussions of each parsed noun phrases in a description; and"

"linking each noun phrase to the cross-referenced discussion for ease of reviewing the patent."

On the other hand, Tran discloses

"parsing noun phrases in claims and cross-referencing one or more discussions of each parsed noun phrases in a description; and"[See paragraph 0053, the agent probes for a generic alternative for each element and uses the generic alternative in place of the specific version of the element in an independent claim, with the specific version being used in appropriate dependent claims for purposes of claim differentiation. For example, if the claim recites a 'jet engine' but the invention can work with any type of engine, the agent would suggest moving the specific reference 'jet' to a dependent claim. 0054, the agent iteratively asks the user what elements can be eliminated from a claim. For each element, the agent asks the user whether this element is really ncessary and can a competitor do without the element in a design around effort. Accordingly, parsing (0053, agent probes…for each element) noun phrases (0053, elements; 0053, jet engine) in claims (0053, claim) and cross-referencing one or more discussions (0054, for each element, the agent asks the user whether the element is really necessary) of each parsed noun phrases (0053, elements; jet engine) in a description (0053, specific reference)]

"linking each noun phrase to the cross-referenced discussion for ease of reviewing the patent."[ See paragraph 0053, the agent probes for a generic alternative for each element and uses the generic alternative in place of the specific version of the element in an independent claim, with the specific version being used in appropriate dependent claims for purposes of claim differentiation. For example, if the claim recites a 'jet engine' but the invention can work with any type of engine, the agent would suggest moving the specific reference 'jet' to a dependent claim. 0054, the agent iteratively asks the user what elements can be eliminated from a claim. For each element, the agent asks the user whether this element is really necessary and can a competitor do without the element in a design around effort. Accordingly, linking (agent

iteratively asks) each noun phrase (elements; jet engine) to the cross-referenced discussion (iteratively asks the user what elements can be eliminated from the claims) for ease of reviewing the patent (figure 2 and 3)]

Du, Anick, Anick 2, and Tran all are directed to systems of patent search. They are all within the same field of endeavor as applicant's invention. It would have been obvious to a person of an ordinary skill in the art at the time the invention was made to have applied Tran's disclosure above to the combination of Du, Anick, and Anick 2 for the purpose of utilizing the searched patents in other ways such as building and drafting patent applications after a search has been done. Doing so expands the capabilities of Du, Anick, and Anick 2.

**Claim 19 :**

Du discloses the following claimed limitations:

"code to receive as a query one or more keywords or assignees to be searched" [Du, figure 8 element 810, receive a search query. ]

"code to search the query in Issued Patent or Published Application databases;" [Du, figure 8 element 840, search patent databases to collect target patents. Du, 0042 lines 10-13, patent databases are searched to collect target patents both satisfying conditions of the search query and whose owners match at least one entity set forth in the watch list. Accordingly, code to search the query (0042, query) in Issued Patent or Published applications (0042, patent databases)]

"code to retrieve cited prior art patents for each patent found in search results;" [Du, figure 8 element 850, search patent databases to collect reference patents. Du, 0042 lines 15-17, patent databases are searched again to collect reference patents that are cited by target patents.

Accordingly, code to retrieve cited prior art (0042, reference patents that are cited) for each patent found as search results (target patents)]

"code to perform a network analysis on a search result and to display the search result"[Du, figure 8 element 850, search patent databases to collect reference patents. Du, 0042 lines 15-17, patent databases are searched again to collect reference patents that are cited by target patents. Du, Figure 4 citation search method. Du, 0034, a citation list is produced. In one embodiment the citation list comprises owners, patent numbers, titles, and issued dates of the first tier reference patents. Accordingly, code to perform a network (figure 1) analysis (search again) on a search result (patent) and to display (citation list is produced) the search result (first tier reference patents).]

"cited prior art patents" [cited prior art patents (Du, 0042, reference patents that are cited)]

Du does not explicitly disclose:

"code to update the query by adding" terms "from the" documents

"code to run a second search using the updated query; and"

On the other hand, Anick discloses

"code to update the query by adding" terms "from the" documents [See Anick, figure 6 elements 614, if a user selects a term in the subset of candidate terms repeat the processing, selecting and presenting with a revised query that includes the received query and the Selected candidate term from the subset of candidate terms. See Anick, figure 6 element 610, a subset of candidate terms that are in one or more of the respective sets of ranked candidate terms that are associated with documents in the initial group of ranked documents. Accordingly, code to

update the query (figure 6 element 614, revised query) by adding terms (figure 6 element 610, terms) from the documents (figure 6 element 610, documents)]

"code to run a second search using the updated query" [Anick, col. 19 lines 21-22, the processing, selecting, and presenting are repeated with a revised query that includes the original query and the selected candidate term from the subset of candidate terms. Accordingly, code to run a second search (processing, selecting, and presenting are repeated) using the updated query (revised query)]

Du discloses a search of target patents as well as reference patents, See figure 8. Anick discloses a query refinement method in which extracted terms are taken from a searched document and then those terms are to be used to update the query see figure 6. Both Du and Anick are directed to search systems. Du searching however does not explicitly disclose updating the query. Anick discloses updating the query and repeating the steps of searching and obtaining more search terms. It would have been obvious to a person of an ordinary skill in the art at the time the invention was made to have applied the disclosure of Anick above to the disclosure of Du for the purpose of providing a query refinement method for subsequent searches. Doing so would provide a better search for patent information to Du's system.

The combination of Du and Anick does not expressly disclose the use of "adding assignee" in relation to updating the query per se. However, Anick broadly discloses this since an extracted term from a document can be an assignee from a document.

On the other hand, Anick 2 more explicitly discloses the use of "adding assignee" in relation to updating the query. See Paragraphs 24-25 facets are determined for a query by extracting terms from result lists. See Paragraphs 28-30, the facet corporation includes patent

assignees. See Paragraph 38 and figure 2 of Anick 2, a selection of a facet value. Anick 2 further discloses "adding assignee" to the query through the use of facets as seen in 0030 and figure 2 in order to further refine a query.

Du, Anick and Anick 2 are all directed towards search systems and are therefore analogous. Du is directed to a target and reference patent search system. Anick is directed to query refinement however does not expressly disclose extracting the Assignee data per se. Anick 2 more expressly discloses a query refinement method that utilizes Assignee data as seen in paragraph 30. Anick 2 therefore discloses using the assignees (patent assignees, Anick 2 paragraph 30) from cited prior art (patent abstracts, Anick 2 paragraph 28) in order to update the query (paragraph 38 and figure 2) as can be seen in a published by Anick 2. It would have been obvious to a person of an ordinary skill in the art at the time the invention was made to have applied the disclosure of Anick 2 to the combination of Du and Anick for the purpose of obtaining assignees from patent documents and using the assignee data to update the query as seen in paragraph 0030 and figure 2 of Anick 2.

Du, Anick, and Anick 2 do not explicitly disclose

"parsing noun phrases in claims and cross-referencing one or more discussions of each parsed noun phrases in a description; and"

"linking each noun phrase to the cross-referenced discussion for ease of reviewing the patent."

On the other hand, Tran discloses

"parsing noun phrases in claims and cross-referencing one or more discussions of each parsed noun phrases in a description; and"[See paragraph 0053, the agent probes for a generic

alternative for each element and uses the generic alternative in place of the specific version of the element in an independent claim, with the specific version being used in appropriate dependent claims for purposes of claim differentiation. For example, if the claim recites a 'jet engine' but the invention can work with any type of engine, the agent would suggest moving the specific reference 'jet' to a dependent claim. 0054, the agent iteratively asks the user what elements can be eliminated from a claim. For each element, the agent asks the user whether this element is really ncessary and can a competitor do without the element in a design around effort. Accordingly, parsing (0053, agent probes...for each element) noun phrases (0053, elements; 0053, jet engine) in claims (0053, claim) and cross-referencing one or more discussions (0054, for each element, the agent asks the user whether the element is really necessary) of each parsed noun phrases (0053, elements; jet engine) in a description (0053, specific reference)]

"linking each noun phrase to the cross-referenced discussion for ease of reviewing the patent."[ See paragraph 0053, the agent probes for a generic alternative for each element and uses the generic alternative in place of the specific version of the element in an independent claim, with the specific version being used in appropriate dependent claims for purposes of claim differentiation. For example, if the claim recites a 'jet engine' but the invention can work with any type of engine, the agent would suggest moving the specific reference 'jet' to a dependent claim. 0054, the agent iteratively asks the user what elements can be eliminated from a claim. For each element, the agent asks the user whether this element is really necessary and can a competitor do without the element in a design around effort. Accordingly, linking (agent iteratively asks) each noun phrase (elements; jet engine) to the cross-referenced discussion

(iteratively asks the user what elements can be eliminated from the claims) for ease of reviewing the patent (figure 2 and 3)]

Du, Anick, Anick 2, and Tran all are directed to systems of patent search. They are all within the same field of endeavor as applicant's invention. It would have been obvious to a person of an ordinary skill in the art at the time the invention was made to have applied Tran's disclosure above to the combination of Du, Anick, and Anick 2 for the purpose of utilizing the searched patents in other ways such as building and drafting patent applications after a search has been done. Doing so expands the capabilities of Du, Anick, and Anick 2.

**Claim 20 :**

The combination of Du, Anick, Anick 2, and Tran disclose in Tran "annotating a patent drawing by taking an item or part list, associating a corresponding item name with an item number, and showing the corresponding item name with the item number to avoid manual annotation of the drawing" [ Paragraph 0073, generates a description by taking the elements of each figure, ascertaining the relationships among the elements, and textually describes the elements in the figures. The process 400 builds on the figures generated in fig. 4. 0074, for each related group of elements in the figure, the process identifies each element in the related group and extract name of element and relationship to other element(s) in the figure. This information is translated into text form. Reference characters corresponding to elements recited in the detailed description and the drawings are used in conjunction with the recitation of the same element or group of elements in the claims. The reference characters are enclosed within parentheses so as to avoid confusion with other numbers or characters that may appear in the claims. 0070, each figure is composed of one or more elements, each of which has a name. Accordingly, annotating a patent

drawing (0073, generates a description) by taking an item or part list (0073, figures), associating a corresponding item name (0074, element name) with an item number (0074, reference characters corresponding to elements), and showing the corresponding item name with the item number (0074, *reference characters corresponding to elements recited* in the detailed description and the drawings are used in conjunction) to avoid manual annotation of the drawing (figure 5, generates a description)].

**12. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 20050010559 by Du et. al. (hereafter Du) further in view of U.S. Patent 6947930 by Anick et. al. hereafter (Anick), "The Paraphrase Search Assistant: terminological Feedback for Iterative Information Seeking" by Anick et. al. (hereafter Anick 2), U.S. Patent Application 2001/0049707 by Bao Tran (hereafter Tran), and U.S. Patent 7428701 by Gavin et. al. (hereafter Gavin).**

**Claim 15 :**

The combination of Du, Anick, Anick 2, and Tran do not explicitly disclose "updating a PDF document by linking from each noun phrase to the description of the PDF document."

On the other hand, Gavin discloses "updating a PDF document by linking from each noun phrase to the description of the PDF document" [See col. 4 lines 38-48, The user is provided with the option of identifying words that are to be redacted. The method then reviews a selected document in portable document format and creates annotations corresponding to each idenfied occurrence of the identified word. In a preferred embodiment, the PDF file is parsed and converted into text occurrence objects as described above. The program checks the text occurrence objects against the list of identified words. An annotation object is created

coinciding with the geometric position of the word as shown in the text occurrence object. The annotation object can be stored in association with the PDF file. Accordingly, updating a PDF document (PDF file) by linking from each noun phrase (word) to the description (text) of the PDF document (PDF file)]

Du, Anick, Anick 2, Tran, and Gavin all are directed to systems of search. They are all within the same field of endeavor as applicant's invention. It would have been obvious to a person of an ordinary skill in the art at the time the invention was made to have applied Gavin's disclosure above to the combination of Du, Anick, Anick 2, and Tran for the purpose of redacting a document created or found. Doing so expands the capabilities of Du, Anick, Anick 2, and Tran by allowing further edits to the discovered documents.

***Response to Arguments***

13. Applicant's arguments with respect to claims 1-20 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

14. The prior art made of record listed on pto-892 and not relied, if any, upon is considered pertinent to applicant's disclosure.

15. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

***Contact Information***

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHAEL PHAM whose telephone number is (571)272-3924. The examiner can normally be reached on 9am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Cottingham can be reached on 571-272-7079. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/M. P./
Examiner, Art Unit 2167

/John R. Cottingham/

Supervisory Patent Examiner, Art Unit 2167